## **DEPARTMENT OF THE ARMY**

REPLY TO ATTENTION OF:

U.S. Army Corps of Engineers WASHINGTON, D.C. 20314-1000

3 1 JUL 1998

CEMP-EC (415)

## MEMORANDUM FOR COMMANDERS, MAJOR SUBORDINATE COMMANDS

SUBJECT: As-Built Drawings

- 1. Reference Engineering Regulation 415-345-38, 31 January 1993, Transfer and Warranties.
- 2. As-built drawings (also called record drawings) are an important product provided to a customer, including USACE civil works operations personnel, upon the completion of a construction or renovation project. Customers must have complete, accurate and timely as-built information for proper operations and maintenance, effective warranty enforcement, and future repair and rehabilitation work. Unfortunately, USACE does not have a consistently good reputation regarding as-built drawings. The predominant complaints from customers are that as-built drawings are not provided in a timely manner or in the format required by the customer.
- 3. To improve customer satisfaction, the enclosed policy on as-built drawings will be implemented for all new projects. Preparation of the final as-built drawings by the construction contractor is required for military projects and preferred for civil works projects. This policy will be permanently incorporated in the revision of the referenced regulation later this year. Also, the Huntsville Engineering and Support Center is developing a guide specification on Contract Closeout Procedures which will address as-built drawings in conformance with the enclosed policy.
- 4. Request that you emphasize in your command the importance of providing timely and quality asbuilt drawings to our customers. Also, ensure distribution of this memorandum to Programs and Project Management, Engineering, Construction and any other concerned functional elements.
- 5. HQUSACE points of contact are Don Evick, CEMP-EC, 202-761-1053, and Ken Buck, CECW-OC, 202-761-8833.

FOR THE COMMANDER:

Encl

Major General, USA

Director of Military Programs

CF: All District Commanders

## USACE POLICY ON AS-BUILT (RECORD) DRAWINGS

- 1. Method of Preparation for Military Projects. The construction contractor will prepare the final as-built drawings, whether in manual or CADD format. There are many advantages to this method. Only one party is responsible for the overall as-built drawing process, which reduces the likelihood for mistakes and misunderstandings. Timeliness and quality can be enforced through the construction contract clauses and payment process. The final as-built drawings can be prepared after the completion of each phase of the construction. Finally, the cost of preparing the final as-built drawings is absorbed in the overall construction contract price. The separate line item cost for the preparation of as-built drawings in the Current Working Estimate will be eliminated.
- 2. Method of Preparation for Civil Works Projects. The preferred method of preparing the final as-built drawings is by the construction contractor. The management plan for the project must justify the preparation of the final as-built drawings by any other method, such as by in-house personnel. Two such exceptions are emergency construction and operations work performed with hired labor. (This policy supercedes the instruction in ER 1110-2-1150, 31 March 1994, Engineering and Design for Civil Works Projects, paragraph 12.g, that Engineering will prepare the final as-built drawings. ER 1110-2-1150 will be revised in the future to conform with this policy.)
- 3. Customer Coordination. The method of producing the as-built drawings and their format will be discussed with the customer at the beginning of a project, reflected in the Memorandum of Understanding with the customer (if applicable) and the management plan for the project, and confirmed with the customer before issuing the construction solicitation. If CADD as-built drawings are required, their specific format and media must be agreed to by the customer and reflected in the design statement of work. The latest version of the CADD standards developed by the Tri-Service CADD/GIS Technology Center should be used, unless a non-Corps customer specifically desires otherwise.
- 4. Working As-Built Drawings. The specifications will require the construction contractor to maintain a current record of the work as actually constructed in the form of working as-built drawings. These working as-built drawings will typically be red-line mark-ups of two sets of the construction plans (one for use by the contractor and one for use by the Government), but may be in electronic format if appropriate. The working as-built drawings must be reviewed at least monthly by the Resident Engineer in conjunction with the approval of progress payments.
- 5. Final As-Built Drawings. The contract specifications will require the contractor's project schedule to show separate activities with realistic payment amounts for preparation of the final as-built drawings after the completion of specific phases of work (foundations, utilities, structural steel, etc., as appropriate for the project). For civil works projects where extensive bid items are used, the cost of the as-built drawings must be specifically attributed to particular bid items. Compliance and delivery of the final as-built drawings will be enforced through the approval of progress payments. Also, the quality of the final as-built drawings will be reflected in the construction contractor's performance evaluation.

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6. Transfer to Customer. Interim as-built drawings will be provided to the customer at project transfer. Interim as-built drawings may be a combination of final as-built drawings for early phases of the project (such as foundations, utilities, and structural framing) and red-line mark-ups for later phases (such as electrical, mechanical and communications). The completed final as-built drawings, in the required media, format and quantities, will be provided to the customer within 60 days after project transfer. (The 60-day period satisfies the requirement in Army Regulation 415-15, Army Military Construction Program Development and Execution.) The 60-day period includes time for final drawing preparation by the contractor, Government review, and correction by the contractor.